



BEACON FEN **ENERGY PARK**

Large Print Consultation Booklet **SPRING 2023**



Thank you for picking up this booklet

Please take more copies if you would like to give to friends or neighbours. It contains information that can also be viewed in our in-person exhibitions and is also available as a download from our website.

Renewable energy company Low Carbon is bringing forward proposals for a new solar and battery storage park on land east of the town of Sleaford, Lincolnshire. Beacon Fen North will be north of the village of Heckington, while Beacon Fen South is proposed on land south of Helpringham.

The project has an anticipated generation capacity of around 600 megawatts (MW), which is enough clean energy to power over 190,000 UK homes. The proposals include the construction of the necessary infrastructure to export the electricity generated into the national grid. It is planned this would be via an existing connection point at the nearby Bicker Fen substation.

The proposed scheme will also include an on-site energy storage system. This will provide an important balancing service for the national grid and allow the electricity generated by the panels to be stored on site at times when grid-demand is low, then exported at times of higher demand.

As Beacon Fen Energy Park would produce over 50MW of electricity, it is classed as a Nationally Significant Infrastructure Project (NSIP) and, therefore, we must apply for a Development Consent Order (DCO) before the project can be built.

This document includes key information about the proposed project and details of how you can respond to our early (non-statutory) consultation.

About this consultation

This early (non-statutory) consultation runs from Monday 15 May 2023 until 11.59pm on Sunday 18 June 2023.

We are engaging with consultees at an early stage of our project proposals so we can gather as much feedback as possible from local stakeholders. This feedback will inform and, where appropriate, influence the design of the scheme as we develop it.

We urge all attendees to please complete either a hard copy or online feedback form to respond to this consultation. Hard copy forms can be handed in at our in-person events, or posted in via our Freepost address.

Our contact details and ways to keep updated on Beacon Fen Energy Park are detailed on the back page of this document.

The need for the project

The UK Government's aim is to increase the nation's solar capacity fivefold by 2035. Beacon Fen Energy Park would deliver a vital contribution towards this ambitious target, securing an estimated 600MW of clean energy and avoiding up to 120,000* tonnes of carbon dioxide (CO₂) emissions each year.

About Low Carbon

Low Carbon creates large-scale renewable energy to fight climate change. We're building a net-zero energy company that will power tomorrow and protect the planet for future generations.



* Low Carbon internal calculations using OFGEM Typical Domestic Consumption Values and BEIS Carbon Conversion Factors.

Low Carbon was established with one goal in mind: to make the biggest contribution we can in the fight against climate change.

Our commitment to the climate mission means we do not cut corners. We manage every asset with care. We treat our communities as real partners. We hold ourselves to account.

And we invest for the long-term benefit of people and the planet.

Low Carbon was founded in 2011 to create renewable power capacity. With our strong foundation in place, we have increased our ambitions exponentially. By the end of this decade, we want to have created 20 gigawatt (GW) of new renewable energy capacity – enough to power the equivalent of 7.8 million homes*.

All of us at Low Carbon know that trust is a vital component of the climate fight. We are a long-standing certified B-Corporation, a reflection of our fundamental ethos to balance the needs of the environment and society with our bottom line. And we always report on our goals and our business with transparency – this is core to who we are.

We can work together to build a completely renewable energy system that will be a profound legacy for the generations that follow us.

**Low Carbon is on a mission.
Together, we will power
tomorrow.**

About Beacon Fen Energy Park

The main components of Beacon Fen Energy Park will be solar photovoltaic (PV) panels and the battery energy storage system (BESS) infrastructure. As we are still in the early stages of developing the proposals, the location of this equipment and how we will minimise any potential environmental impacts are still to be determined.



The principal components comprise:

- Solar PV panels and modular ground-mounting structures. The height of the panels considered will be up to 4.5m, with individual panels anticipated to be approximately up to 2.5m long and up to 1.5m wide. The proposal is for a fixed (i.e., static) panel orientation
- Supporting infrastructure – inverters, combiner box, transformers – converting the direct current to alternating current and stepping up the voltage so it can be exported to the National Grid
- A battery energy storage system (BESS), so electricity can be stored on-site and then released into the National Grid when it is needed most. The BESS containers and switch rooms are anticipated to be approximately up to 12.5m x 3m, with a height of up to 4.5m
- Onsite cables connecting the solar PV modules and energy storage system to inverters which, in turn, connect to the transformers
- Fencing enclosing the operational areas of the site, with security measures including pole mounted internal facing closed circuit television (CCTV) around the site perimeter
- Access tracks to the site during construction and for routine maintenance when operational
- New planting around the site perimeter and within the solar and BESS development area to provide visual amenity, reduce landscape impacts, and provide substantial net gains for biodiversity

In addition:

- During construction, one or more temporary construction compounds will be required, as well as temporary roadways, to enable access to all the land within the energy park boundary

How does solar energy work?

This is how the sun is harnessed to power the planet.
Steps 1 to 6 happen at the solar farm.

1. Solar Panels

Convert the sun's energy into DC electrical power.

2. Battery

Storing generated electricity to help the UK Electricity Network meet the needs when demand is high.

3. Inverter

Converts DC into AC electrical power.

4. Transformers

Steps up the voltage to the same voltage as the grid connection.

5. Substation

Ensure the solar farm is safely connected to the grid.

6. Export Meter

Measures the electricity exported to the grid.

7. Output to the grid (kWh)

Local Network Operator

8. Homes

Beacon Fen Energy Park location

Beacon Fen Energy Park is situated between Sleaford and Boston in Lincolnshire. Beacon Fen North is north of the village of Heckington, while Beacon Fen South is proposed on land south of Helpringham.

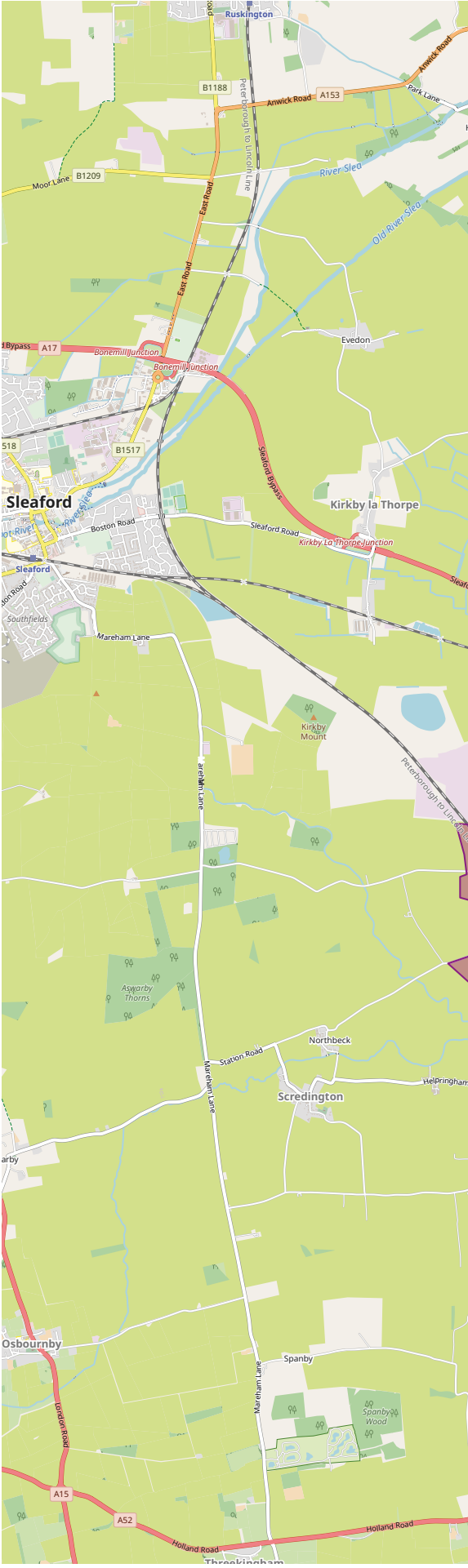
This map shows the proposed sites for Beacon Fen North and Beacon Fen South, as well as the indicative cable route search area which shows the area within which the cable route corridor will be located.

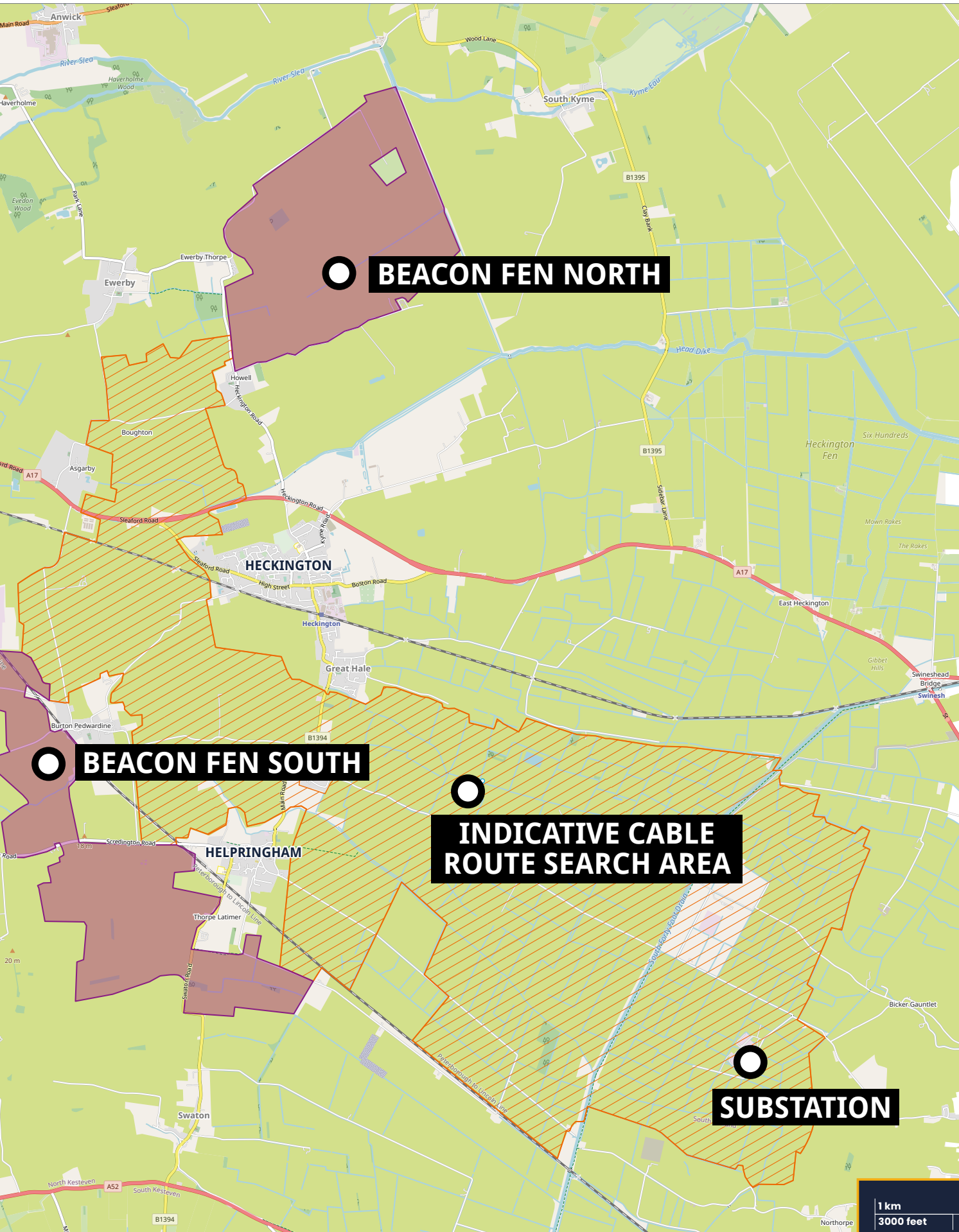
At this early stage we are considering a large area known as our “indicative cable route search area” in order to find the best route to Bicker Fen substation.

This will allow us to work with landowners, the local community, and stakeholders from the start to finalise our plans. We will be able to refine this area down to only a few cable route corridor options following the results of additional survey assessment work and feedback from this early (non-statutory) consultation.

We look forward to presenting this to stakeholders and the local community at our planned statutory consultation in winter 2023, where there will be further opportunity to feed into plans.

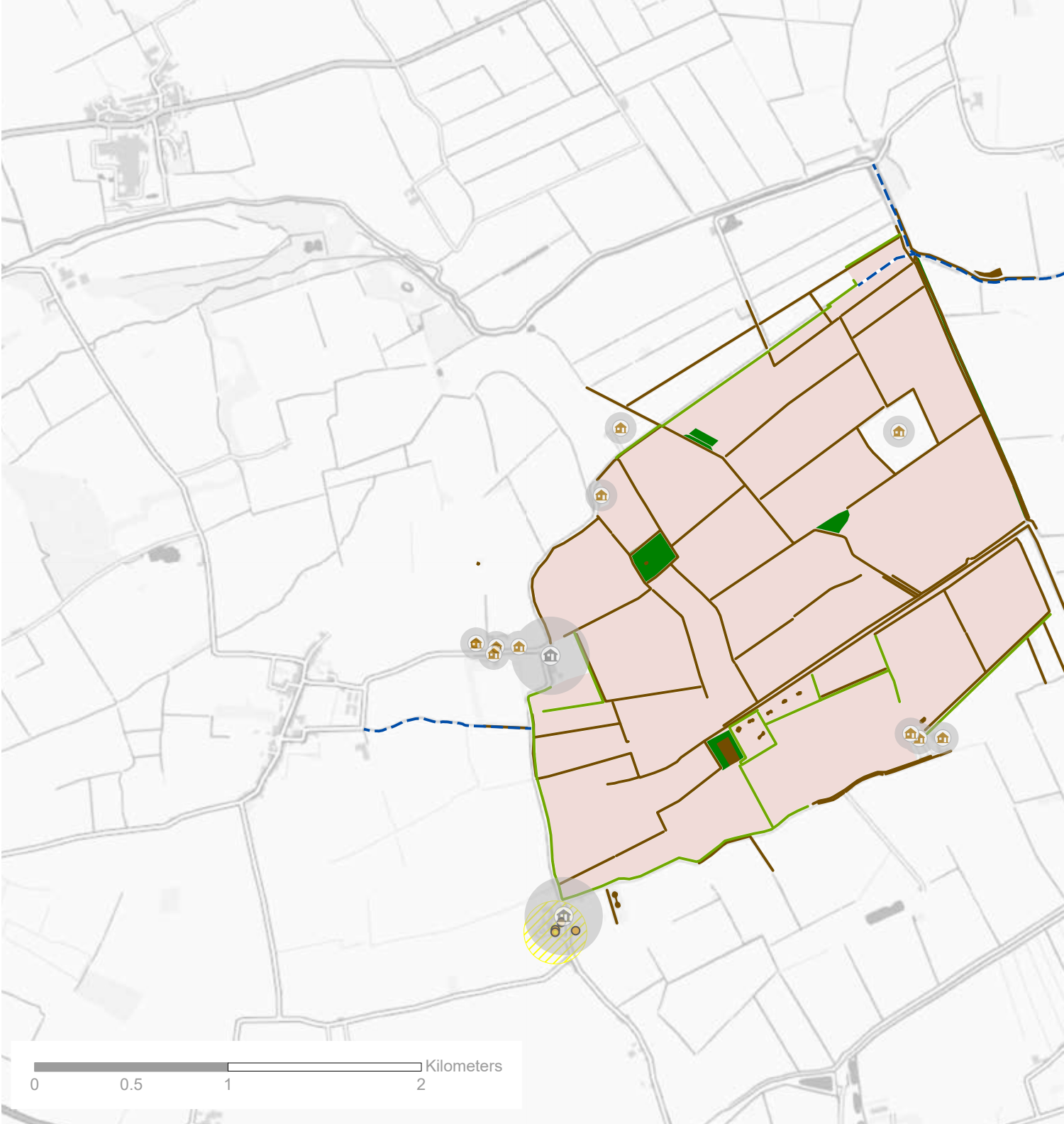
Beacon Fen Energy Park location





Beacon Fen Energy Park masterplans

Beacon Fen North

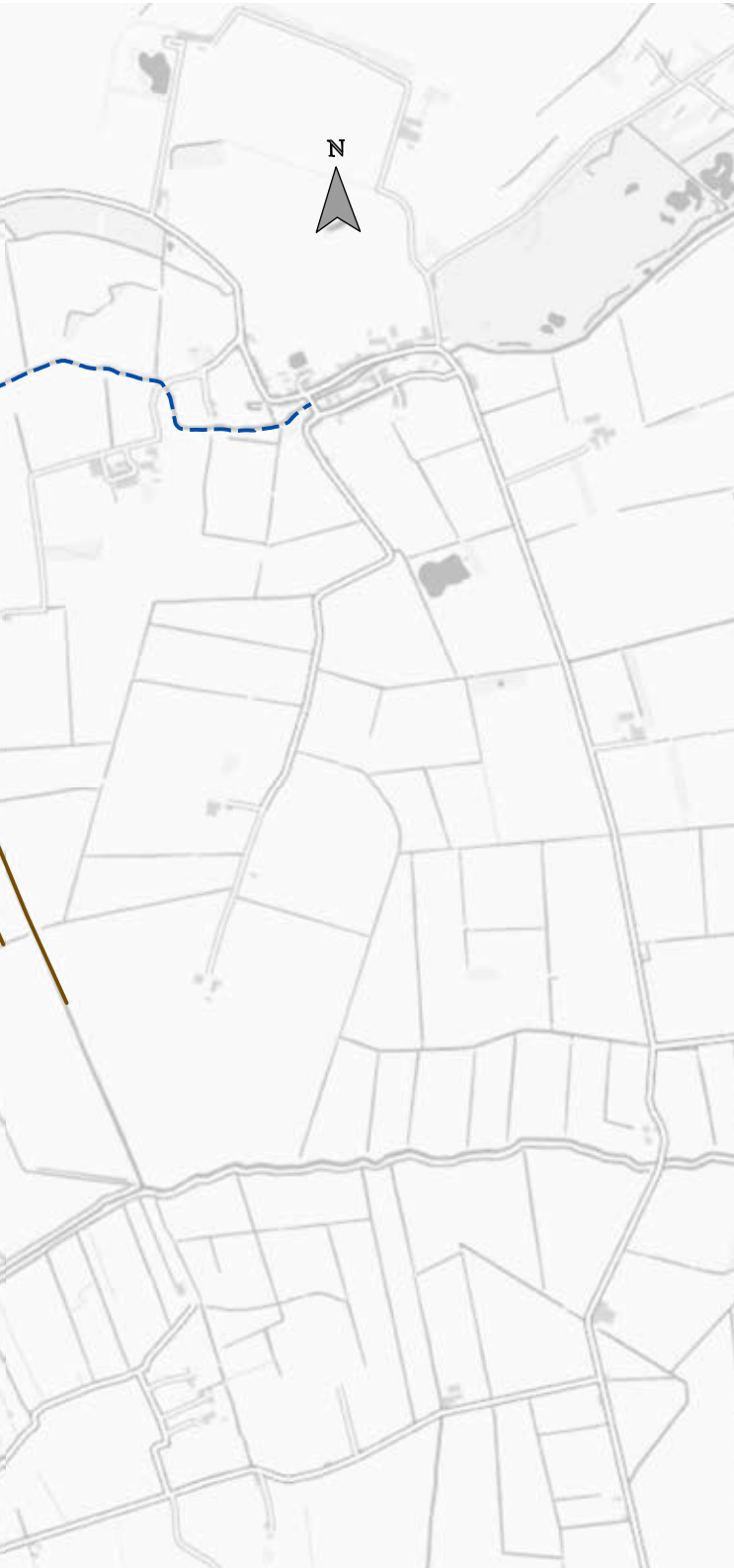


We have identified the following existing built and environmental features in the local area that we will consider when developing our proposals:

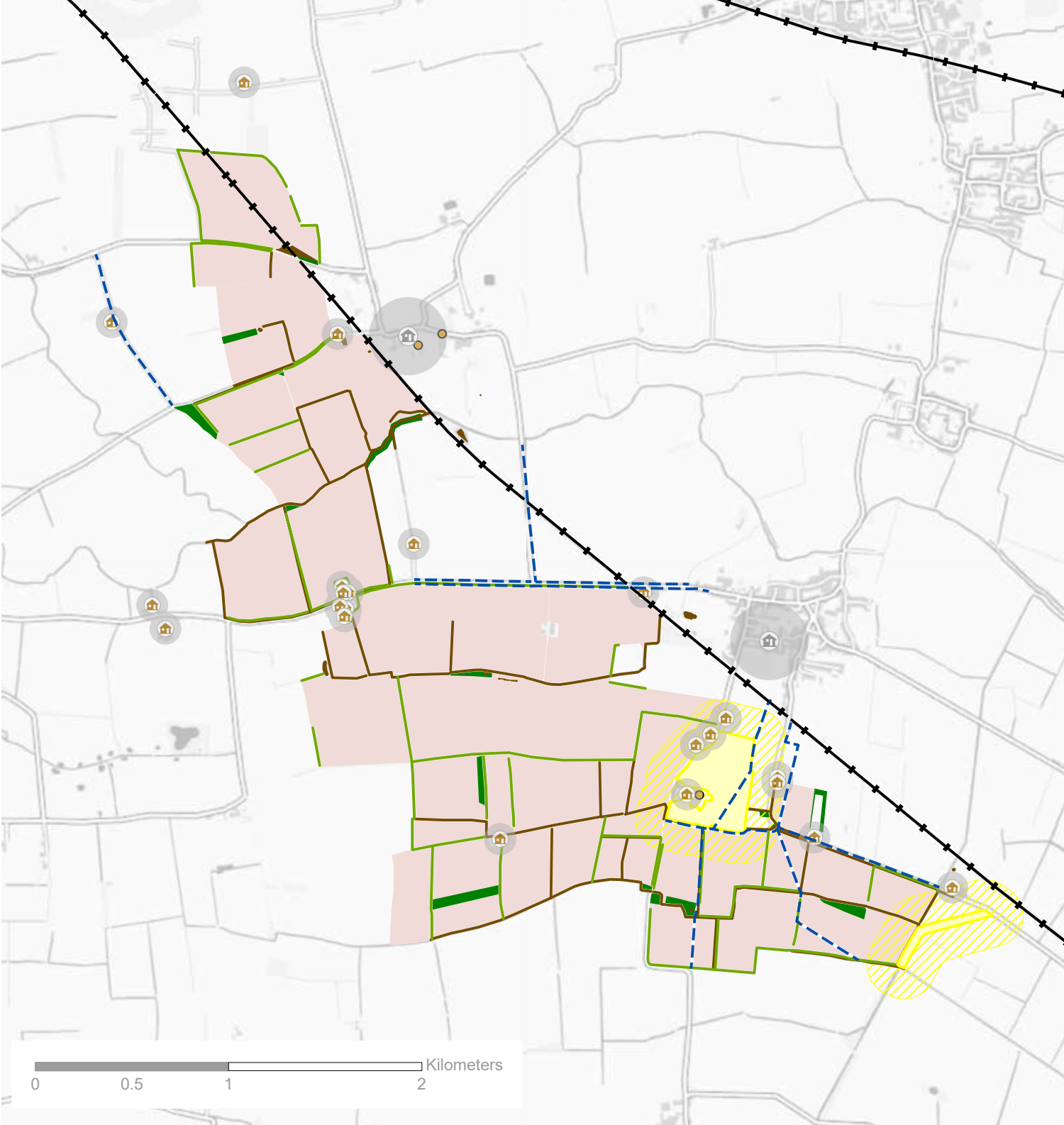
- Existing field boundaries (particularly in Beacon Fen South)
- Existing ditches and waterbodies (particularly in Beacon Fen North)
- Nearby scheduled monuments in Beacon Fen South
- Nearby settlements and individual residential dwellings

Our development will be designed with appropriate setbacks from these features. These are shown indicatively in these plans, but will be sized and designed based on the results of our Environmental Impact Assessment.














Similarly, we will include extensive planting proposals to provide screening and biodiversity enhancement, which may result in slight reductions in the solar/ BESS development area extent, which will be informed by our Environmental Impact Assessment and Biodiversity Net Gain work.



Beacon Fen South



Key

	Potential Solar / BESS Area		Residential settlement
	Waterbodies		Residential property
	Existing woodland		Listed buildings
	Scheduled monument		Existing hedgerow
	Potential Development Design Buffer		Existing ditches and waterbodies
	Indicative Scheduled Monument Buffer		Indicative Public Right of Way
			Railway



The images comprise indicative concept masterplans showing the full extent of land available and are for the purposes of consultation only. The areas and features shown are subject to change based on the environmental assessment, design development and feedback received.

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The Historic England GIS Data contained in this material was obtained on 16/01/2023. The most publicly available up to date Historic England GIS Data can be obtained from [HistoricEngland.org.uk](https://historicengland.org.uk)

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Connecting to the national grid

The electricity generated by Beacon Fen Energy Park will be exported into an existing connection at National Grid's Bicker Fen substation.

Following initial desk-based surveys, we have identified a broad cable route search area in which an electrical connection between the energy park and Bicker Fen substation will be routed. The project team is currently undertaking technical assessments of the different constraints within this search area. The findings, together with feedback submitted during this early (non-statutory) consultation, will inform the selection of the preferred cable route corridor options for the project.

This preferred route will be shared and consulted upon during statutory consultation, which is scheduled to take place later this year.

Building the grid connection

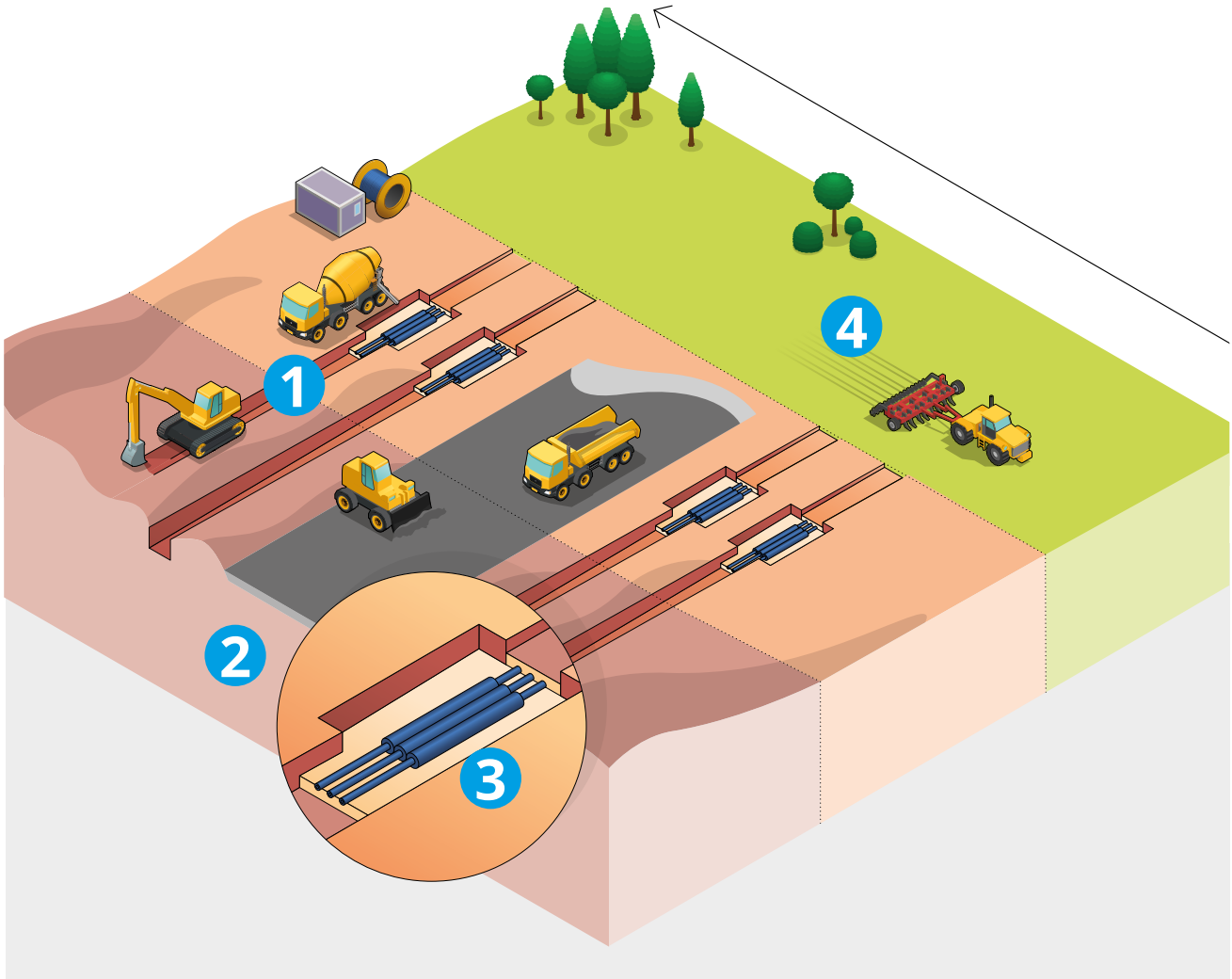
The connection for Beacon Fen Energy Park could be built using cables installed underground or running on overhead lines.

We anticipate that underground cables will be used to connect the energy park to Bicker Fen substation. However, overhead lines remain an option pending the findings from our ongoing survey work, which will determine whether there are any localised issues along parts of the route that would prevent underground excavation.

The images on the next pages show the different construction techniques and equipment used for installing underground cables or overhead lines.

Underground cable

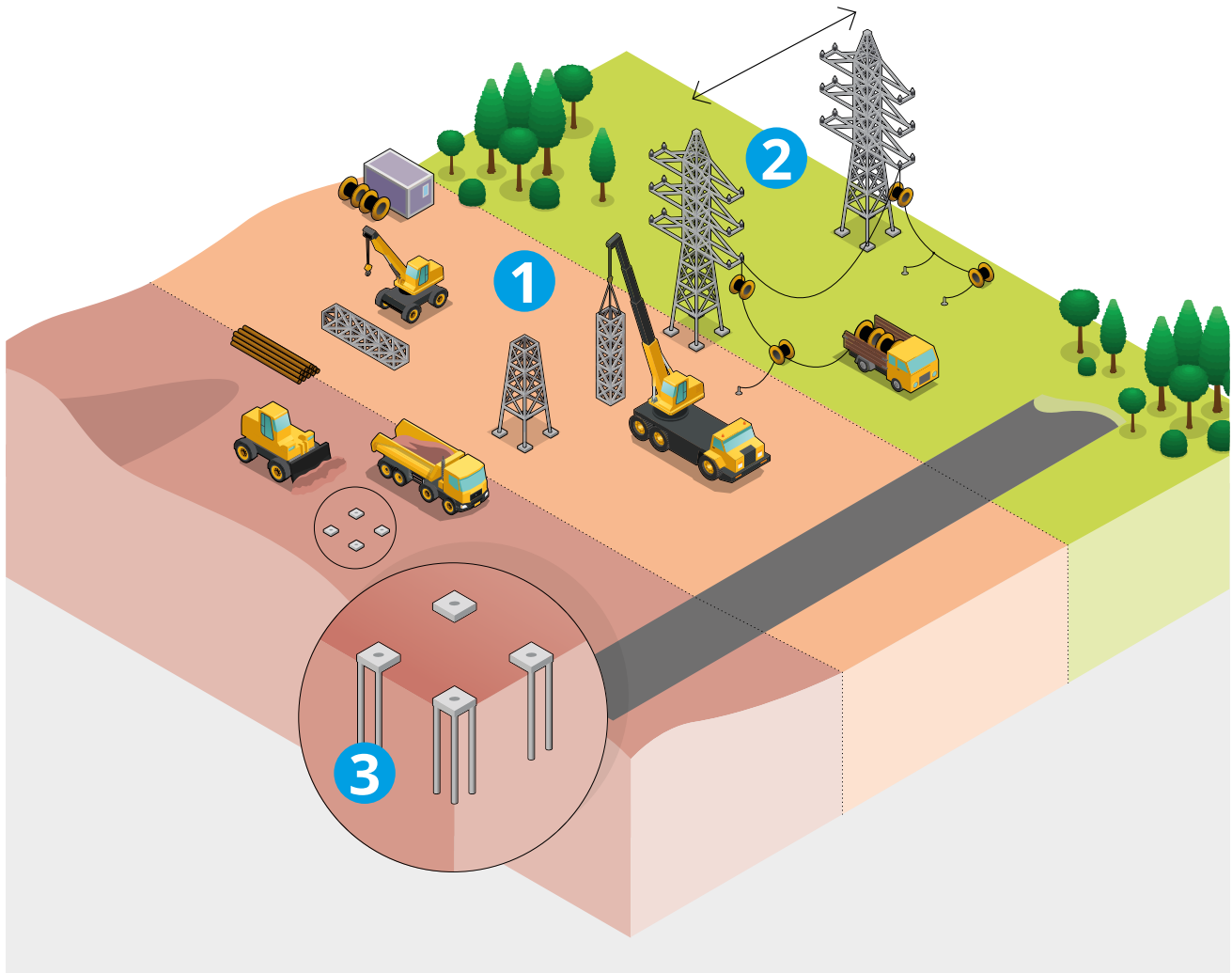
- Can be installed by direct burial where there is no restriction on land use
- A sealing end compound is needed where a section of underground cable comes above ground



1. A trench approximately two metres wide and two metres deep will be excavated for each cable.
2. During construction the working width of land needed would be between 30 to 40 metres.
3. Joining bays are needed where one section of cable joins the next.
4. When land is reinstated, land-use restrictions may apply to avoid risk of cables being disturbed or damaged.

Overhead lines

- The height of the pylons – between 30 and 50 metres tall will determine whether the overhead line is installed using metal towers or wood pole
- A range of factors determine the distance between pylons including: pylon height, whether the landscape is flat or hilly as well as changes in route



1. Height of the pylons between 30 metres and 50 metres.
2. Distance between pylons approximately 360 metres.
3. Foundations approximately 6 metres deep.



Benefits

As a certified B Corporation, we believe it is right that those communities closest to the proposed Beacon Fen Energy Park are able to benefit from it. This includes environmental, community and economic benefits.

We will put measures in place to benefit the local wildlife and communities. This is why across our other solar sites we are averaging far beyond the 10% biodiversity net gain DCOs are required to provide.

Land surveys are currently assessing suitable areas for:

- Construction traffic to access the site
- Any necessary buffers to protect views from heritage sites
- Areas to protect and enhance biodiversity

Environmental Impact Assessment

In accordance with Regulation 12 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, Beacon Fen Energy Park requires an Environmental Impact Assessment (EIA). This is undertaken to assess any impacts the proposal may have on the environment and is worked on over many months.

An EIA Scoping Report is currently being considered by the Planning Inspectorate, which has written to the local authorities and parish councils in the local area for their input on the topics and methodologies to be used in the EIA. This is separate to our early (non-statutory) consultation.

A Preliminary Environmental Impact Report (PEIR) will be prepared for the statutory consultation phase. Stakeholders and local communities will have the opportunity to give their feedback on the report, which will then be finalised into an Environmental Statement and submitted as part of the plans.

Work has started and is ongoing to assess any potential impacts on the environment of the site, from views and ecology to noise and traffic.

The findings from these environmental assessments will be used to understand the potential impact the construction, operation and decommissioning of Beacon Fen Energy Park could have on local communities, the environment and landscape. This includes identifying mitigation measures for any potential identified impacts.

Reducing or avoiding impacts is one of our top priorities. In developing proposals for the project, a large range of measures will be considered to minimise its effect against a range of different factors.



Our early (non-statutory) consultation

We are undertaking an early (non-statutory) consultation from Monday 15 May 2023 to Sunday 18 June 2023.

During this period, we will hold three in-person consultation events and two online webinars. Here, we will introduce Low Carbon and the overall project, share our early-stage proposals and give the local community and interested parties the opportunity to share their views and local knowledge.

Whilst not formally required, our intention is to gather the views of local residents, businesses and stakeholders from an early stage to help us refine our proposals for Beacon Fen Energy Park.

Later on in the year, a statutory consultation will be carried out where we will share more detailed proposals and there will be a further opportunity to feed into the plans.



The Development Consent Order process

As Beacon Fen Energy Park will generate more than 50MW of power, it is classed as a Nationally Significant Infrastructure Project (NSIP) and needs to be granted a Development Consent Order (DCO) under the Planning Act 2008 before it can be built. Applications for DCOs are examined independently by the Planning Inspectorate (PINS), a government executive agency.

Following examination of the project, PINS will make a recommendation to the Secretary of State (SoS) for Energy Security and Net Zero, who will decide the final outcome of the application.

The six steps of the DCO process are:

1. Pre-application (where we are now)

Before an application is submitted, we will carry out two consultations; the first being this early (non statutory) consultation which will be followed by a statutory consultation phase on the refined proposals and preliminary environmental information. Following statutory consultation and the completion of our EIA, we will submit an application for a DCO in quarter one 2024.



2. Acceptance

After an application is submitted, PINS has 28 days to decide whether it meets the standards required to be accepted for Examination.

3. Pre-Examination

During this stage, consultees may register as an Interested Party by making a Relevant Representation, which is a written summary of their views. Inspectors are selected, who then hold preliminary meetings and set out the timetable for Examination.

4. Examination

PINS has a six-month period within which to carry out the Examination. This is mostly a written process, and those who have registered as Interested Parties will be invited to provide further information in writing. There will also be open floor hearings, which the public can register to speak at.

5. Decision

After Examination has closed, PINS has three months to prepare a report which includes a planning decision recommendation to the relevant SoS. The SoS then has a further three months to issue a final decision.

6. Post-decision

In the event of a positive decision, a DCO would be granted (or 'made' as it is a form of legislation). Beacon Fen Energy Park would take a final investment decision and then discharge requirements and comply with the powers and provisions of the DCO.

Planned timeline



How to give us your feedback

Gathering feedback is essential and we want to hear your thoughts. Your written views will be analysed and shared with the project team for consideration. You can share your views in a number of different ways.

Please fill out a feedback form and hand it in at one of our events, or post it to us using the Freepost address below by Sunday 18 June 2023. Alternatively, you can fill in the form online on our website below.

If you need to give your feedback in other ways, or have accessibility requirements, please do let us know.

The deadline for responding to this consultation is 11.59pm, Sunday 18 June 2023.

There are many ways you can keep in touch with Beacon Fen Energy Park, including signing up to the mailing list on the Beacon Fen Energy Park website.

Website: www.beaconfenenergypark.co.uk

Email: info@beaconfenenergypark.co.uk

Post: FREEPOST Beacon Fen Energy Park [no stamp required]

Phone: 0330 057 1943

